



PVC Kids' Table and Stool

Written By: Larry Cotton



TOOLS:

- [Combination square \(1\)](#)
- [Drill and drill bits \(1\)](#)
- [File or high-speed rotary tool \(1\)](#)
such as a Dremel
- [Hot glue gun \(1\)](#)
- [Jigsaw with fine-toothed blade \(1\)](#)
for cutting plywood
- [Marking compass \(1\)](#)
- [Measuring tape \(1\)](#)
- [Saw \(1\)](#)
for cutting plastic pipe. Handheld saws will work, but we recommend a band saw or a table saw with a miter gauge and a fine-toothed blade.
- [Screwdriver or long driver bit \(1\)](#)



PARTS:

- [PVC pipe \(1\)](#)
for the stool. Buy a 10' length, Lowe's part #23838, and use it for the other projects too. We used cheap, foam-core Schedule 40 sewer-and-drain PVC but other types of PVC will work.
- [PVC pipe \(1\)](#)
Lowe's #23834, for table legs
- [Sheet metal screws \(4\)](#)
- [Wood screws \(12\)](#)
- [Plywood \(1\)](#)
- [Plywood \(2\)](#)
- [Plywood \(2\)](#)
- [Dry-erase board \(1\)](#)
Lowe's #61082, for table and stool tops
- [Contact cement \(1\)](#)
- [Wood dowel \(1\)](#)
- [Scrap wood \(1\)](#)
for making a miter gauge extension
- [Spray paint \(1\)](#)

various colors. If you're using primer, you can use most any paint. To skip the primer, use Krylon Fusion or Rust-Oleum Paint for Plastic; they're formulated to bond directly to plastic.

- [Spray automotive primer \(1\)](#)
Rust-Oleum or equivalent
- [Automotive body filler putty \(1\)](#)
such as Bondo filler or DuPont 315 glaze
- [Sandpaper \(1\)](#)
- [Masking tape \(1\)](#)
- [Hot glue \(1\)](#)

SUMMARY

By Larry Cotton and Phil Bowie

Humble PVC drain pipe is cheap, widely available, easy to work with, and almost endlessly useful for making everything from patio furniture to elegant sculptures.

This small table fits young kids perfectly — and they can scribble to their hearts' content on the dry-erase tabletop.

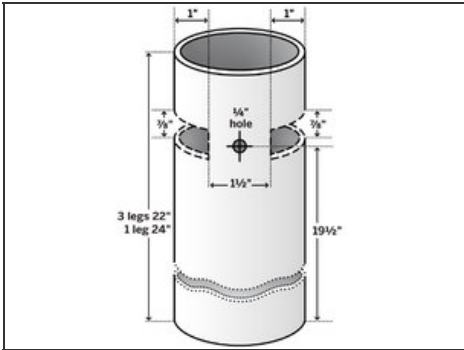
The Kids' Table and Stool is part of a series of four family-friendly projects that use 3"- or 4"-ID (inside diameter) PVC pipe. In a weekend you can easily make all four: a kids' table with a dry-erase top and matching stool, a [two-faced clock](#) to help you remember friends in another time zone, a [hanging planter](#), and an [accent lamp](#) that seems to float on light.



You can make them with handheld tools, but bench tools such as a band saw or table saw with a fine-toothed blade work best for making square and accurate cuts. PVC also bends easily when heated in boiling water, which opens up all kinds of new shapes and design possibilities.

If cutting pipe from a 10' length, ask a friend to help support it. Use a face mask and ear protection for cutting and sanding.

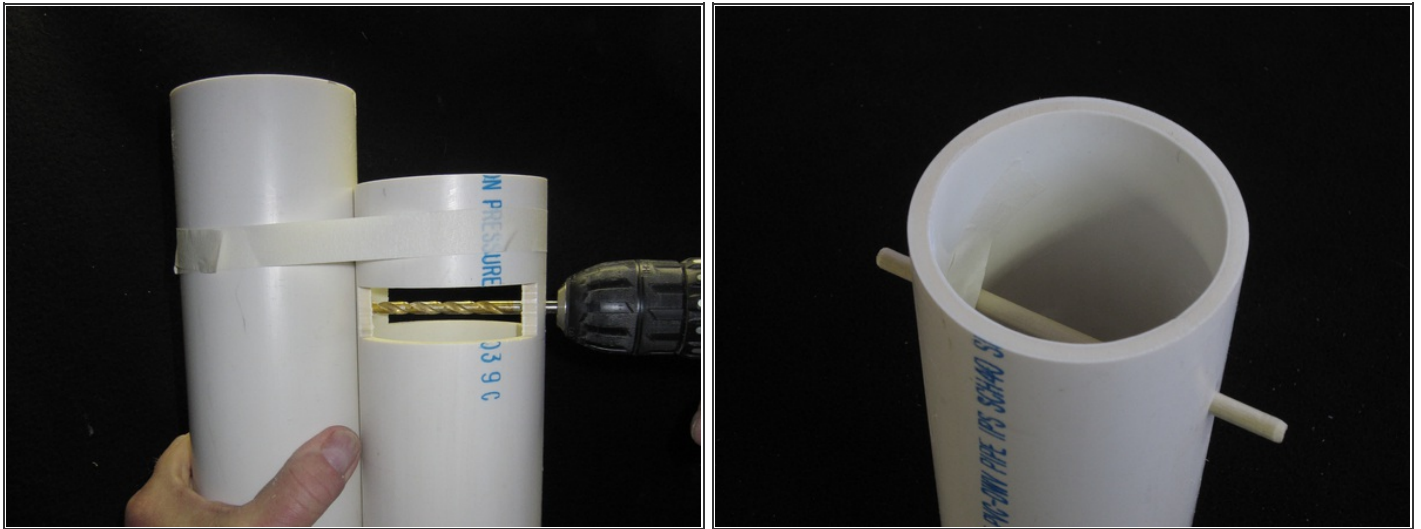
Fill any dings with automotive body filler and/or glaze. Then sand the pipe parts with 180-grit sandpaper, prime, and paint. If you want to skip the primer, there are new spray paints that adhere directly to plastic.

Step 1 — Make the table legs.



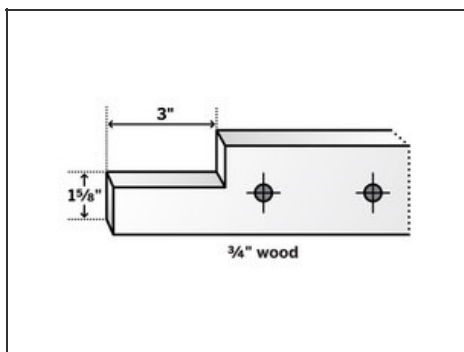
- PVC pipe tends to roll while cutting on a table saw, so hold it firmly and cut slowly. Gripper gloves help. For cutting off sections on a table saw, set the blade just slightly higher than the pipe wall thickness. Don't use a ruler or tape to set blade height; instead, make trial cuts in a scrap of wood and measure the cuts. Always wear eye protection when using power saws. 
- Cut them from a 10' length of 3"-ID pipe. It's best to use a table saw with a rip fence and a miter gauge to keep the slots and pipe ends square and parallel.
- Wrap a measuring tape around one end of a leg and put marks at the starting point and at exactly half the distance around the leg. Drill — from the outside, not straight across — 1" holes through both sides of the legs. Then drill straight across to enlarge both holes to 1/4".
- One leg is longer than the others (for storing markers and an eraser). 

Step 2



- Using this technique and the first leg as a guide, drill the holes in the other 3 legs. All holes are 19½" from the bottom ends.
- Insert a 6"-long, ¼"-diameter wood dowel in the first leg, held by tape inside.

Step 3



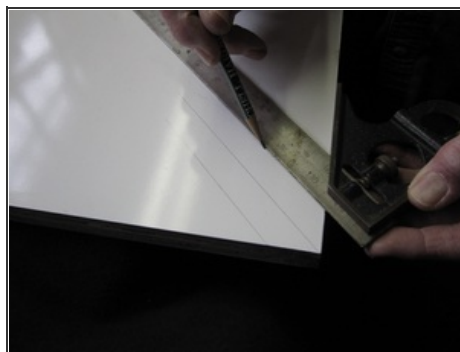
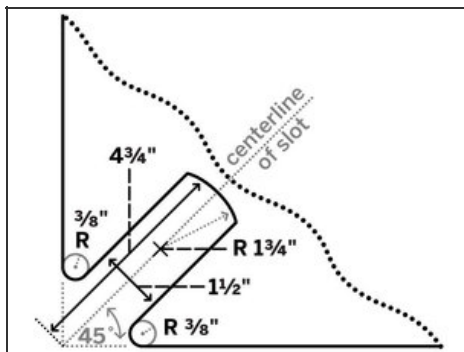
- Slot one leg to mate with the tabletop. The dowel in the pipe will ride on its top surface so the finished leg slots will be perfectly aligned.
- Set the table-saw blade depth to exactly 1". Using the miter-gauge extension, cut the slots in the leg. The slot dimensions and positions are critical to ensure that your table is sturdy and all 4 legs are perpendicular to the top.
- Remove the dowel. (The holes will be used to attach the legs to the table.)
- If you use a table saw, first make a miter-gauge extension from 3/4"-thick scrap wood as shown in this diagram.
- While cutting, make multiple small passes and be sure the side of the dowel always stays in contact with the miter-gauge extension.



Step 4

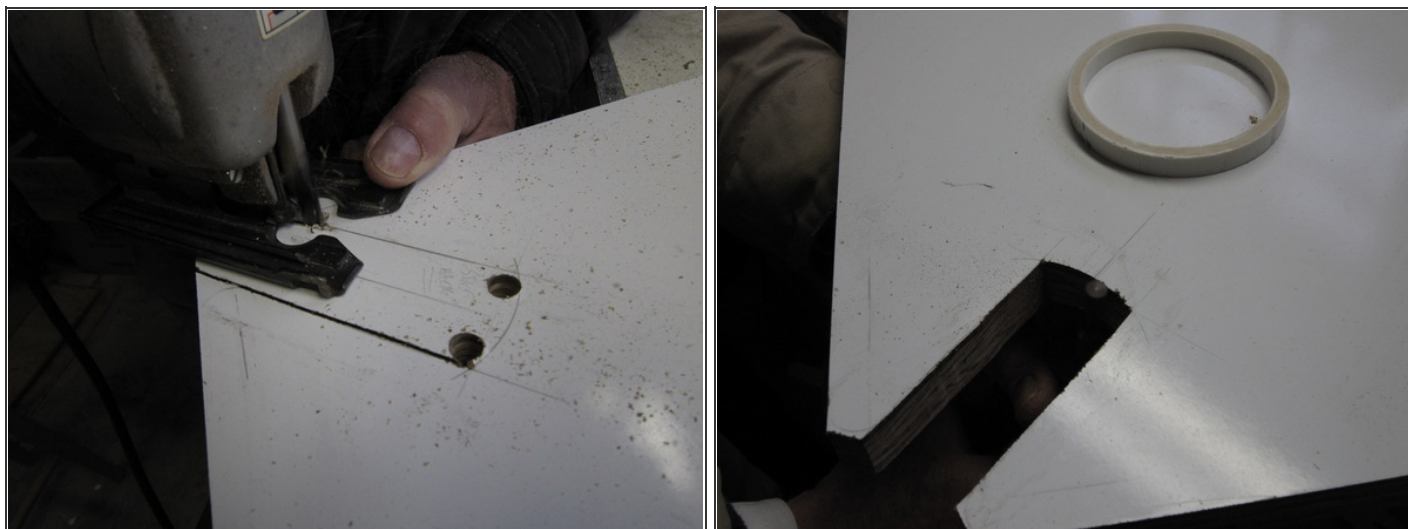


- Repeat steps 2-3 for the other legs. When slotting the longer one, the rip fence (parallel to the blade) must be moved to accommodate that leg's extra length.
- Paint the legs a bright color. Hanging the legs horizontally while painting helps.

Step 5 — Make the tabletop.

- For the tabletop core, we used smooth $\frac{3}{4}$ " plywood, 2'x2'. For more durability, use exterior plywood. The top surface is $\frac{1}{8}$ " dry-erase board.
- Cut a slightly oversized piece of dry-erase board and laminate it to the plywood using Weldwood ("The Original") contact cement. Follow the container directions exactly. After pressing the 2 pieces tightly together, trim all sides and sand the edges smooth. Avoid scratching the dry-erase surface.
- Lay out the 4 identical corners. A combination square is helpful. Draw the radius at the back of each slot with a thin ring of 3"-ID pipe, then use a compass or the end of a $\frac{3}{4}$ " dowel to mark the 8 radii at the slot ends.

Step 6



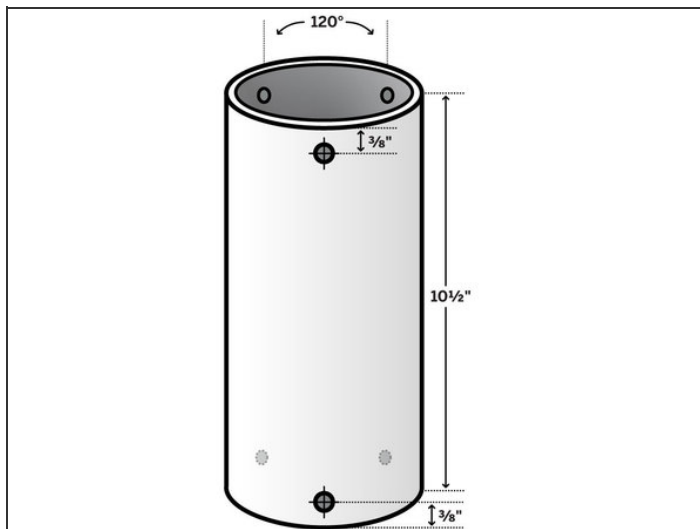
- To facilitate cutting, drill 3/8"-diameter holes in the corners of each slot, then cut with a handheld jigsaw with a fine-toothed blade. Sand, file, or Dremel the slots until the legs fit snugly into them. This will ensure the table doesn't wobble.
- Fill any imperfections in the legs and the top's edges with Bondo and/or glazing putty. Mask the top and paint its edges white. Paint its bottom for more durability.

Step 7



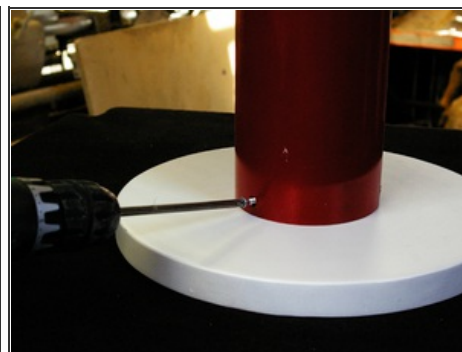
- Use four #10×1" Phillips-head sheet metal screws to screw the legs into the tabletop.
- To cap the legs, cut 3" disks from the dry-erase board and drop them into the tops of the legs.

Step 8 — Make the stool.



- For the column, cut a 10 1/2" length of 4"-ID pipe and drill 6 clearance holes in it as shown in the diagram. Countersink them so the #8 screws will sit flush.
- Cut 2 disks of 3/4" plywood to fit snugly into the 4" pipe. Cut 2 more 3/4" plywood disks 12" in diameter for the stool's top and bottom.
- For speed and accuracy, cut plywood disks on a band saw and pivot the plywood on a brad with its head snipped off.

Step 9



- Attach the small disks to the centers of the large disks using three #8×1" screws each.
- Laminate an oversized disk of dry-erase board to one of the disks for the top.
- Trim, sand, and finish the top and bottom to match the tabletop.
- Assemble the stool with six #8×1" flathead wood screws.

For more PVC creations, try these other projects!

[PVC Two-Faced Clock](#)[PVC Floating Accent Light](#)[PVC Plant Holder](#)

This project first appeared in [MAKE Volume 30](#), page 96.

This document was last generated on 2012-11-01 07:40:54 PM.